

REMARKS

In the Office Action dated July, 6 2005, the Examiner rejected claims 2, 3-9, and 12 under 35 USC 112, second paragraph, and rejected claims 1-21 under 35 USC 103 as obvious in view of Mandler (US Patent 5,732,400) and Bhatt (US Patent 6,405,191). In response thereto, the Applicant has amended claims 1-2 and 12 and added new claims 22-33. Claims 1-33 remain at issue.

35 USC 112, SECOND PARAGRAPH

The Applicant has amended claims 1-9 and 12 to correct the issues raised by the Examiner. The Applicant requests that the 35 USC 112, second paragraph rejection be withdrawn.

The Art Rejection

The applicant strongly disagrees with the Examiner's 35 USC 103 rejection. The present invention is not obvious in view of Mandler and Bhatt. The Examiner has failed to demonstrate a prima facie case of obviousness.

The present invention relates to a dynamic multicasting broker system and method between an e-buyer entity and a plurality of e-business entities. Each of the e-business entities subscribe to a chosen service. During operation, the e-buyer entity generates or publishes a message to the broker. In reply, the broker determines which of the e-business entities should receive the message. Once the determination has been made, the broker forwards or publishes the message to the selected e-business entities. Each of the selected e-business entities then review the message and determine if a response is to be generated. The responses are sent back to the broker and then forwarded to the e-buyer entity. In various embodiments, the message is a request for a quote for goods or services and the responses are actual quotes from the e-business entities.

The Mandler reference is directed to a system for handling transactions between buyers and sellers over a computer network. The system includes a financial clearing house for receiving a registration application from buyers. When a buyer attempts to register, the clearing house makes a dynamic, real-time risk classification of the buyer utilizing an on-line repository of credit data. If the buyer's risk classification is acceptable, the clearing house provides a preliminary authorization for a proposed purchase by the buyer and transmits a request for the quotation for the desired goods or services to the seller or sellers who are connected to the clearing house via the computer network. The clearinghouse then receives the price quotes from sellers responding to the request. The buyer may then chose to select one of the quotes and place an order with the corresponding seller. After performing a final credit authorization for the amount of the purchase, the seller is notified of the order. After the seller provides a notice of the fulfillment of the order, the clearinghouse transmits the payment amount of the transaction to the seller and an invoice to the buyer. See Column 3, lines 47-65 of Mandler.

In one specific embodiment of Mandler, as illustrated in FIG 1B, a broker 30 creates an on-line order and acceptance system between buyers 20 and sellers 10. Multiple brokers can be coupled to a single financial clearing house 40 by assigning each broker a unique number. See column 8, lines 25-36. During operation, an authorized buyer 20 submits an RFQ 40 to a broker 30. If the clearing house deems the buyer acceptable, the RFQ is transmitted to the sellers 10 via the computer network. In response, the sellers provide quotes to the broker 30. The broker 30 gathers all the quotes and sends them to the buyer 20. The buyer identifies the desired goods based on the quotes and then sends a purchase order (PO) to the broker. Thereafter, the broker requests a hard authorization for the transaction in the amount of the PO from the clearinghouse 40. If the clearinghouse provides an ACCEPT, the transaction is allowed to go forward. See column 9, lines 12-50.

The Mandler reference, however, does not teach a system where sellers or e-business entities subscribe to a chosen service. Since there is no subscription to a chosen service, there is no need for the broker in Mandler to determine which of the e-business entities or sellers should receive a particular quote message from the broker. On the contrary, the broker 30 of Mandler automatically forwards requests for quotes from authorized buyers to sellers. Mandler does not teach or suggest *determining the selected ones of the plurality of e-business entities to receive the message by the broker and publishing the message to the selected ones of the plurality of e-business entities based upon the determining by the broker.*

Bhatt is directed to a relational database, content-based, publish and subscribe system. Prior to messages being able to be sent to a subscriber, the subscriber must first submit an expression that is written as a query in a language that is supported by the relational database. The database system stores the expression as a “rule”, which determines if subsequent incoming messages should be sent to the subscriber. For example, if a later incoming message satisfies the rule, then the message is delivered to the subscriber. If the rule is not satisfied, the message is not sent to the subscriber.

The evaluation of the rules for determining whether an incoming message is to be sent to a subscriber is performed using a two-tier evaluation method. The first tier involves using a “Fast Evaluation” mechanism to filter out the stored subscription rules that do not apply to the incoming message. See column 4 line 65 through column 5 line 12. The subscription rules that are not filtered out may require further evaluation to determine if they apply to the incoming message. The second tier evaluation may be one of two types, either a “Simple” follow-on evaluation or a “Complete Evaluation”. See column 4, lines 1-24.

As described in column 5, lines 15-44, the Fast Evaluation phase of message processing is performed using an array of “filters”. Each column or “box” of the array consists of a filter. According to one embodiment, a filter is an attribute-operator pair that includes: (1) a value that identifies a column of a table, and (2) a value that identifies an operator. The following attribute-operator pairs are examples of filters in a system where the message table includes the columns “name” and “price”:

“name=”

“name>”

“name<”

“price=”

“price>”

"price<"

If not all subscription rules were filtered out during the Fast Evaluation process, then the incoming message may be further evaluated using the Simple follow-on evaluation. To illustrate the Simple follow-on evaluation, an example is provided in column 6, lines 44-58. In the example, assume that Rule X from the Array of Rules 202 associated with Box 102 in Figure 2 consisting of the attribute-operator pair, "name=" was not filtered out by the Fast Evaluation. Further assume that Rule X comprises one or more conditions joined by conjunctive operators. For example, Rule X may look like, "stock quotes with name=Oracle AND price<60". Rule X was not filtered out because the incoming message satisfied the "name=Oracle" portion of Rule X. However, further evaluation is needed to determine if the incoming message satisfies the remainder portion of Rule X, namely, "price<60".

The Fast Evaluation mechanism of evaluating an incoming message may not filter out all complex subscription rules, and therefore, may have to be followed by a Complete Evaluation. Examples of complex subscription rules are provided in column 7 lines 5-25 and are reproduced below for convenience:

"Indian restaurants within a 5 mile radius of the location of 500 Oracle Parkway".

"Dresses with a magenta floral design and price=\$50"

"Company with name=Oracle and has an Indian restaurant on its campus"

In the above examples, the phrases, "within a 5 mile radius of", "with a magenta floral design", and "has an Indian restaurant on its campus", are considered complex conditions that require the SQL engine for interpretation. If during the Fast evaluation of an incoming message, there were one or more subscription rules that were not filtered out and that contained a complex condition requiring the SQL engine for interpretation, then the incoming message must undergo Complete Evaluation to determine if it satisfies those rules.

In the Office Action, the Examiner made reference to specific sections in Bhatt that allegedly teach various aspects of the present invention as claimed. A careful review of Bhatt, however, indicates that the Examiner has misconstrued the actual teaching of Bhatt.

1. The Examiner states that column 5, lines 48-52 discloses “*subscribing to a service interface a certain plurality of entities.*” For convenience, the referenced text of Bhatt is provided below:

When a subscriber submits a subscription rule, the database parser parses the subscription rule by first normalizing the subscription rule into a series expressions joined by disjunctive operators, where each expression is itself a series of one or more conditions joined by conjunctive operators. For example, the subscription rule, "stock quotes of stocks with name=Oracle and price<60 or name=Hewlett Packard and price<95" is normalized to...

Based on the discussion above, it is clear that the subscription taught by Bhatt is for a content based subscription service. When a message is received by the system, a two-tier evaluation system is used to determine if the subscriber should receive the message as noted above. In contrast, the term subscription as used in the present invention relates to a specific type of good or service an e-business entity may wish to subscribe. The use of the term subscription in the present invention, therefore, has nothing to do the subscription rules (e.g., "*Dresses with a magenta floral design and price=\$50*") described by Bhatt.

2. The Examiner also states that column 3 line 64 through column 4 line 3 teaches “*determining the selected ones of the plurality of entities to receive the message*”. The corresponding text of Bhatt provides:

According to an embodiment, an incoming message is evaluated against stored subscription rules using a two-tier evaluation mechanism. The first tier involves using a "Fast Evaluation" mechanism to filter out the stored subscription rules that could not possibly apply to the incoming message.

As noted above, Bhatt is directed to a relational database content based publish and subscribe system. The database system stores predefined “rules” which determine if an incoming message should be sent to various subscribers. The tiered evaluation system involves the fast, simple follow-on, or a complete evaluation steps to filter incoming messages to determine if an incoming message should be sent to subscribers. In Bhatt, there is no e-business entities. Bhatt therefore does not teach or suggest *determining the selected ones of the plurality of e-business entities to receive the message by the broker and publishing the message to the selected ones of the plurality of e-business entities based upon the determining by the broker.*

In summary, Bhatt does not teach a system where e-business entities subscribe to a chosen service. Since there is no subscription to a chosen service, there is no need for or mention of a broker in Bhatt to determine which of the e-business entities should receive a particular quote message from the broker. On the contrary, Bhatt is directed to a content based, relational database, publish and subscribe system. The database system stores predefined “rules” which determines if an incoming message should be sent to various subscribers. A tiered evaluation system that involves a fast, simple follow-on, or a complete evaluation is provided to filter incoming messages to determine if an incoming message should be sent to various subscribers. Bhatt therefore does not teach or suggest the features of the present invention that the Examiner says that it does.

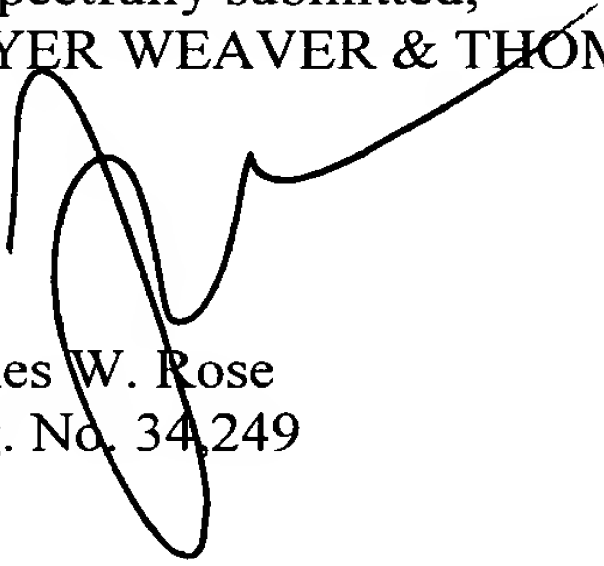
Mandler or Bhatt, either alone or in combination, fail to teach or suggest *determining the selected ones of the plurality of e-business entities to receive the message by the broker and publishing the message to the selected ones of the plurality of e-business entities based upon the determining by the broker*. Since neither reference teaches this feature, the claims are patentable over the two references, either alone or in combination.

Furthermore, the Applicant submits that the two references are not combinable. Mandler is directed to reducing the risks to merchants offering goods or services over a computer network. Bhatt is directed to a content based publish and subscribe system used with a relational data base and having a two-tiered evaluation process for handling queries. The two references have absolutely nothing to do with one another. There is no teaching or suggestion in the Mandler reference that would teach or motivate one skilled in the art to turn to the Bhatt reference, and vice versa.

Lastly, even if it were proper to combine the references, the proposed combination would result in the two tiered evaluation method of Bhatt for presumably evaluating the request by buyers for quotes from sellers in the system described by Mandler. Such a combination, however, would not yield the present invention, which is directed to a dynamic multicasting broker system and method between an e-buyer entity and a plurality of e-business entities where (i) each of the e-business entities subscribe to a chosen service; (ii) a broker determines which of the e-business entities should receive the message based on a prior description to the chosen service; and (iii) the broker forwards any responses received from the selected e-business entities among those who chose to respond.

The Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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